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TELESCOPING CATHETER

CROSS-REFERENCE TO RELATED APPLICATION(S)

This application claims the benefit of U.S. Provisional Patent Application No. 60/426,834, filed November 15, 2002, the entire disclosure of which is incorporated herein by reference.

BACKGROUND

Electrophysiology catheters are commonly used for mapping electrical activity in a heart. By mapping the electrical activity in the heart, one can detect ectopic sites of electrical activation or other electrical activation pathways that contribute to heart malfunctions. This type of information may then allow a cardiologist to intervene and destroy the malfunctioning heart tissues. Such destruction of heart tissue is referred to as ablation, which is a rapidly growing field within electrophysiology and obviates the need for maximally invasive open heart surgery.

Such electrophysiology mapping catheters typically have an elongated flexible body with a distal end that carries one or more electrodes that are used to map or collect electrical information about the electrical activity in the heart. The distal end can be deflectable to assist the user in properly positioning the catheter for mapping in a desired location. Typically, such catheters can be deflected to form a single curve. It is desirable to have a catheter that can be deflective to form a variety of curves to thereby map an entire region where a single curve may not be sufficient.

SUMMARY OF THE INVENTION

The present invention is directed to an improved catheter that is particularly useful for mapping electrical activity in a heart of a patient and that allows the user to vary curve preferences as well as the number of electrodes to be used to map a particular area of tissue.

In one embodiment, the invention is directed to a catheter comprising an elongated catheter body having a proximal end, a distal end and a lumen extending longitudinally therethrough. A control handle is attached to the proximal end of the catheter body. The control handle includes a first member, such as housing, that is moveable relative to a second